From [redacted]

Sent Tuesday, March 7, 2006 5:22 pm

To NOAA.LNGBP@noaa.gov

Cc

Bcc

Subject Ban All Open Loop Regasification

Open loop systems should be banned. No further discussion.

There is no need to alter/destroy the natural environment with the massive amounts of chilled, chemically treated water generated by these systems.

The enormous profits being enjoyed by the oil & gas industry will more than provide the money to build and maintain closed loop systems.

[redacted]

From Scott Alford <alford@fcj.com>
Sent Wednesday, March 8, 2006 11:16 am
To NOAA.LNGBP@noaa.gov
Cc David.MacDuffee@Noaa.Gov
Bcc
Subject Closed-Loop Only

NOAA makes an incorrect assumption in the report when it makes its recommendation on p. 7 paragraph A that LNG terminals (especially open-loop systems) should be placed as far offshore as possible in locations of "**lower biological productivity**." For some species, these offshore waters are the sum total of their biological reproductive cycle. Tarpon for example spawn on the continental shelf. Their entire reproductive cycle depends upon reproducing in offshore waters. Other pelagic species also use these areas as their prime areas for larval development or spawning. All LNG systems should be mandated to be closed loop systems. There is not enough known of the details of these spawning areas and the risk of a potentially catastrophic impact is too great from open-loop LNG terminals. No other system should be accepted. It is simply a cost issue and any and all associated costs can be passed through with minimal impact to consumers down stream.

All LNG terminals should be mandated to be closed-loop systems.

A. Scott Alford
12723 Broken Bough
Houston, Texas 77002
713-365-0254

From Scott Alford <alford@fcj.com>
Sent Wednesday, March 8, 2006 12:28 pm
To NOAA.LNGBP@noaa.gov
Cc David.MacDuffee@Noaa.Gov
Bcc
Subject RE: Closed-Loop Only

I have commented previously but would like to make one more very pointed comment.

Tarpon are a major game fish species accounting for the generation of huge recreational revenues in Florida and other Gulf States. It is a known, documented, published, biological fact that tarpon, while being a nearshore species spawn along the continental shelf of the Gulf of Mexico. The larval tarpon then swim all the way into estuaries to develop prior to their return to the Gulf. This is a known FACT. This activity has been documented in Texas and in Florida. Open LNG terminals in any potential area along the Gulf Coast could wipe out entire spawning efforts for tarpon. No level of monitoring effort could ever guarantee that the microscopically small tarpon larvae would not be destroyed by the millions by an open loop LNG terminal. The species is fragile enough that it is protected in almost every state along the Gulf from harvest without purchasing tags and other major restrictions.

I am sure tarpon are not the only species potentially impacted.

PLEASE PLEASE PLEASE, only approve of closed-loop systems. It is essential to the environment.

From "Shumate,Andrea" <Andrea.Shumate@CHAMP-TECH.com>
Sent Wednesday, March 8, 2006 12:04 pm
To NOAA.LNGBP@noaa.gov
Cc
Bcc
Subject Close Loop System

Champion Technologies

I am writing to you in order to express my desire for close loop systems to be used in the Gulf of Mexico!

Thank you,

Andrea' Shumate

Champion Technologies

File: headerImage.gif

From [redacted]

Sent Wednesday, March 8, 2006 12:11 pm

To NOAA.LNGBP@noaa.gov

Cc

Bcc

Subject LNG

Please be mindful of the environmental impact the open loop LNG system may have on the Gulf of Mexico. I would prefer to see the closed loop LNG system implemented.

[redacted]

From Debbie Husband <dhusband@fcj.com>
Sent Wednesday, March 8, 2006 12:26 pm
To NOAA.LNGBP@noaa.gov
Cc David.MacDuffee@Noaa.Gov
Bcc
Subject Closed-loop only!!!!!!!!!!!
Attachments image001.jpg 13K

NOAA makes an incorrect assumption in the report when it makes its recommendation on p. 7 paragraph A that LNG terminals (especially open-loop systems) should be placed as far offshore as possible in locations of "**lower biological productivity**." For some species, these offshore waters are the sum total of their biological reproductive cycle. Tarpon for example spawn on the continental shelf. Their entire reproductive cycle depends upon reproducing in offshore waters. Other pelagic species also use these areas as their prime areas for larval development or spawning. All LNG systems should be mandated to be closed loop systems. There is not enough known of the details of these spawning areas and the risk of a potentially catastrophic impact is too great from open-loop LNG terminals. No other system should be accepted. It is simply a cost issue and any and all associated costs can be passed through with minimal impact to consumers down stream.

All LNG terminals should be mandated to be closed-loop systems.

Debbie Husband
Franklin, Cardwell & Jones
1001 McKinney, 18th Floor
Houston, Texas 77002

From Erik Wollam <EWollam@law-ffw.com>

Sent Wednesday, March 8, 2006 2:03 pm

To NOAA.LNGBP@noaa.gov

Cc

Bcc

Subject LNG : Gulf of Mexico

Please do not allow / promote open loop LNG terminals. We need to stop the trend of cost savings over environment.
Thanks.

Erik Wollam
Fulkerson, Feder & Wollam, L.L.P
1776 Yorktown, Suite 340
Houston, Texas 77056
phone (713) 225-3400
fax (713) 225-3300
ewollam@law-ffw.com

From Steven Putney <sputney@paymetric.com>
Sent Wednesday, March 8, 2006 6:41 pm
To NOAA.LNGBP@noaa.gov
Cc David.MacDuffee@Noaa.Gov
Bcc
Subject Closed-Loop Only
Attachments image001.gif 1K vCard(Steven Putney) 1K

NOAA is making an incorrect assumption in the report when it makes its recommendation on p. 7 paragraph A that LNG terminals (especially open-loop systems) should be placed as far offshore as possible in locations of "lower biological productivity."

For some species, these offshore waters are the sum total of their biological reproductive cycle. Tarpon for example spawn on the continental shelf. Their entire reproductive cycle depends upon reproducing in offshore waters.

Other pelagic species also use these areas as their prime areas for larval development or spawning. All LNG systems should be mandated to be closed loop systems. There is not enough known of the details of these spawning areas and the risk of a potentially catastrophic impact is too great from open-loop LNG terminals.

No other system should be accepted. It is simply a cost issue and any and all associated costs can be passed through with minimal impact to consumers down stream.

All LNG terminals should be mandated to be closed-loop systems.

Steven M. Putney
President & Chief Executive Officer
Office (713) 895-2100
Mobile (713) 775-8505
Fax (713) 895-2001

From snagged <snagged@stx.rr.com>
Sent Wednesday, March 8, 2006 7:33 pm
To NOAA.LNGBP@noaa.gov
Cc David.MacDuffee@Noaa.Gov
Bcc
Subject Closed-Loop Only

NOAA makes an incorrect assumption in the report when it makes its recommendation on p. 7 paragraph A that LNG terminals (especially open-loop systems) should be placed as far offshore as possible in locations of "lower biological productivity." For some species, these offshore waters are the sum total of their biological reproductive cycle. Tarpon for example spawn on the continental shelf. Their entire reproductive cycle depends upon reproducing in offshore waters. Other pelagic species also use these areas as their prime areas for larval development or spawning. All LNG systems should be mandated to be closed loop systems. There is not enough known of the details of these spawning areas and the risk of a potentially catastrophic impact is too great from open-loop LNG terminals. No other system should be accepted. It is simply a cost issue and any and all associated costs can be passed through with minimal impact to consumers down stream.
The open-loop systems are too excessively damaging to the enviroment.

All LNG terminals should be mandated to be closed-loop systems.

Jerry Semifeo

From Suzan Cardwell <cardwell@fcj.com>
Sent Wednesday, March 8, 2006 11:42 pm
To NOAA.LNGBP@noaa.gov
Cc
Bcc
Subject Closed-Loop Only

All LNG terminals should be mandated to be closed-loop systems. Warming our coastal waters will have davastating environmental impact even if open-loop systems are placed far off shore.

NOAA makes an incorrect assumption in the report when it makes its recommendation on p. 7 paragraph A that LNG terminals (especially open-loop systems) should be placed as far offshore as possible in locations of "**lower biological productivity**." For some species, these offshore waters are the sum total of their biological reproductive cycle. Tarpon for example spawn on the continental shelf. Their entire reproductive cycle depends upon reproducing in offshore waters. Other pelagic species also use these areas as their prime areas for larval development or spawning. All LNG systems should be mandated to be closed loop systems. There is not enough known of the details of these spawning areas and the risk of a potentially catastrophic impact is too great from open-loop LNG terminals. No other system should be accepted. It is simply a cost issue and any and all associated costs can be passed through with minimal impact to consumers down stream.

All LNG terminals should be mandated to be closed-loop systems. This includes those that already exist. We cannot kill our sealife. Far more than tarpon will be davastated by the use of open-loop systems.

From Trey.Diaz@Intralox.com

Sent Thursday, March 9, 2006 9:41 am

To NOAA.LNGBP@noaa.gov

Cc

Bcc

Subject Comments on LNG terminals

I am not against the importing liquid natural gas in to the United States nor am I against the building of the LNG terminals themselves in the Gulf of Mexico or elsewhere. However, I oppose the use of Open Rack Vaporization as a means of converting the fuel back in to its gaseous state. The oil and gas companies should absolutely be required to implement the best available technology. It is obvious even to the laymen that the best technology is the Closed Rack Vaporizers.

It is blatantly obvious that the oil and gas companies are trying to maximize their profits at the expense of the environment and at the expense of other industries. Closed rack systems will allow the companies to still make a massive profit and at the same time conserve the fisheries along the Gulf Coast.

From Kevin Webb <kwebb@gvtc.com>

Sent Thursday, March 9, 2006 10:46 am

To NOAA.LNGBP@noaa.gov

Cc David.MacDuffee@Noaa.Gov

Bcc

Subject closed loop systems

Please make all LNG terminals closed loop systems. From what we think we know about the life cycles of certain fish—especially tarpon, an open loop system could suck millions of larval fish into it and kill them. A mature tarpon takes between 30 and 50 years to replace...if we kill millions of larval tarpon, they may never be replaced.

The fact is we just do not know what impact open loop terminals have on these animals, and it is irresponsible to not understand what we are doing before doing it. If closed loop systems cost more, I will pay more on my monthly gas bill.

Thanks.

Kevin Webb
Texas

From Chuck <ChuckT@allchem.net>
Sent Saturday, March 11, 2006 3:20 pm
To NOAA.LNGBP@noaa.gov
Cc David.MacDuffee@Noaa.Gov
Bcc
Subject Open loop LNG facilities in the Gulf of Mexico

Dear Sirs,

As a beneficial user of the resources in the Gulf of Mexico, I strongly urge the NOAA to ONLY allow closed loop LNG facilities to be built in the Gulf of Mexico. Open loop systems are too destructive to a fragile marine ecosystem and would have major negative ecomomic impacts on many industries, both directly and indirectly. Almost every fish species in the Gulf of Mexico that has food and/or sport value is being exploited to the point of collapse according to the NMFS. The complete sterilization of the vast quantites of water required to run an open loop LNG system would now be a very real and deadly threat to the very beginning life cycles of these economically important fish species. The closed loop system would not have this major impact and would be minimally more costly to the few companies that stand to gain the most from the economics of the open loop system. You would be negatively impacting many millions of users and many thousands of small commercial companies, and their employees, for the windfall benefit of a very small number of huge, mulitnational conglomerates. I urge NOAA to BAN the use of open loop LNG systems in the Gulf of Mexico immediately.

Chuck Tylka
11811 Glen Bay Court
Houston, TX 77089

From [redacted]
Sent Monday, March 13, 2006 10:08 am
To NOAA.LNGBP@noaa.gov
Cc David.MacDuffee@Noaa.Gov
Bcc
Subject LNG terminals should be mandated to be closed-loop systems

NOAA makes an incorrect assumption in the report when it makes its recommendation on p. 7 paragraph A that LNG terminals (especially open-loop systems) should be placed as far offshore as possible in locations of "**lower biological productivity**." For some species, these offshore waters are the sum total of their biological reproductive cycle. Tarpon for example spawn on the continental shelf. Their entire reproductive cycle depends upon reproducing in offshore waters. Other pelagic species also use these areas as their prime areas for larval development or spawning. All LNG systems should be mandated to be closed loop systems. There is not enough known of the details of these spawning areas and the risk of a potentially catastrophic impact is too great from open-loop LNG terminals. No other system should be accepted. It is simply a cost issue and any and all associated costs can be passed through with minimal impact to consumers down stream.

All LNG terminals should be mandated to be closed-loop systems.

From franciscole@cox.net
Sent Monday, March 13, 2006 5:23 pm
To NOAA.LNGBP@noaa.gov
Cc
Bcc
Subject LNG BMP's
Attachments GULF RESTORATION NETWORK - Join Mr. Bill in telling Shell Noooo!.htm 10K

Please help to protect our marine fisheries by encouraging the use of "closed loop" re-gassification technologies. Please see attached video and thanks for your consideration on this issue.

The Gulf Needs Your Help!

Take Three Steps to Protect Fish and Local Fishermen

Step 1: Watch "Mr. Bill Says Shell Nooo!" (Windows Media file, 4.9 MB)

Step 2: Take action today! Click here to send an e-mail to Shell.

Step 3: Get your friends involved. Please use the form below to ask five friends to act on this important issue.

Your Name:
Your Email:
Your Message:

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I thought you'd want to take this opportunity to
voice your support for fishermen and fish in the
Gulf of Mexico.  Visit
http://healthygulf.org/shellcallinday.htm to find
out how!
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Email:
Email:
Email:
Email:
Email:

Spread the Word!

To learn more about LNG in the Gulf of Mexico, click here.

From [redacted]
Sent Saturday, March 25, 2006 4:57 am
To NOAA.LNGBP@noaa.gov
Cc "mailto:David.MacDuffee"@noaa.gov
Bcc
Subject ConocoPhillips Beacon Point LNG Terminal

Dear Mr. MacDuffee,

I am writing to you today to express my concern over the planned use of Open Rack Vaporizers (ORV's) in the proposed ConocoPhillips' Beacon Port LNG Terminal. I have no objection to the terminal itself, just to the use of the ORV's. Alternative technologies, such as the Submerged Combustion Vaporizers (SCV's), are available which will have a significantly lower impact on the marine environment. SCV's are not new technology, and have been required for LNG terminals on both the east and west coasts of the United States. I am both amazed and appalled that the marine natural resources of both Texas and Louisiana are being put at risked so that ConocoPhillips can slightly increase their profit margin of this terminal.

I have reviewed many of the documents pertaining to this project that are available on-line at the DOT Docket Management System website (http://dmses.dot.gov). According to the documents, the use of ORV's to vaporize the incoming LNG will require the use over 167 million gallons of sea water a day. (To put this in perspective, if the platform is in water that is 67' deep, ALL the water for a radius of approximately 325 feet around the platform would be pumped through the platform each day. Obviously, this is not what will happen, and a much larger area will be impacted, but this gives a feeling for how much water will be pumped through the facility each day.) To prevent fouling of the ORV's, this water will need to be chlorinated. The chlorine will not be completely consumed by the time the water is returned from the ORV's to the surrounding gulf – it will continue to kill marine life as it travels down current from the terminal. The potential impact zones are quite large, and occur in an ecosystem that is complex, dynamic, and not necessarily well modeled. The potential impacts on the Red Snapper fishery, which the NMFS says is already under too much pressure, could be devastating.

The documents show that the expected on-going impact of using SCV's instead of ORV's on the economics of the project would be the consumption of approximately 1.5% of the imported LNG, and that the capital cost of installing the SCV is actually lower than that of the ORV's. A difference of 1.5% in delivered fuel from this terminal will not significantly alter the supply situation in the US natural gas market or the profitability of the terminal. As ALL other operating LNG terminals in the United States are able to operate profitably using SCV's, there is no reason that this facility should be any different.

As a chemical engineering that has been involved in the design, construction and operation of petrochemical facilities for the past fifteen years, I can't believe that this project is being approved with ORV's. The onshore chemical industry is being regulated to reduce emissions each year, and for new facility installations, we are required to use the most environmentally friendly technology for pollution control devices irregardless of capital or operating cost. I know that oil field operations have historically operated under less stringent environmental regulations than the chemical industry, but this terminal is not really a production facility, it is an unloading station. The technology exists that could essentially eliminate all marine

ecosystem impacts of the terminal for a minor change in the project economics – ConocoPhillips should not be allowed to risk the natural resources that belong to all Texas and Louisiana residents in order to be able to sell 1.5% more natural gas from each ship they unload. They should be required to use SRV's for the Beacon Point LNG terminal.

Best Regards,

[redacted]

From Doug Webb <gdwebb@gvtc.com>
Sent Monday, March 27, 2006 4:51 pm
To NOAA.LNGBP@noaa.gov
Cc
Bcc
Subject cc: David.MacDuffee@noaa.gov

Dear NOAA / David,

I totlly agree with the following:

NOAA makes an incorrect assumption in the report when it makes its recommendation on p. 7 paragraph A that LNG terminals (especially open-loop systems) should be placed as far offshore as possible in locations of "lower biological productivity." For some species, these offshore waters are the sum total of their biological reproductive cycle. Tarpon for example spawn on the continental shelf. Their entire reproductive cycle depends upon reproducing in offshore waters. Other pelagic species also use these areas as their prime areas for larval development or spawning. All LNG systems should be mandated to be closed loop systems. There is not enough known of the details of these spawning areas and the risk of a potentially catastrophic impact is too great from open-loop LNG terminals. No other system should be accepted. It is simply a cost issue and any and all associated costs can be passed through with minimal impact to consumers down stream.

All LNG terminals should be mandated to be closed-loop systems.

Sincerely,

Doug Webb

From sjwild <sjwild@bellsouth.net>

Sent Saturday, April 1, 2006 10:38 am

To NOAA.LNGBP@noaa.gov

Cc wilderseam@yahoo.com

Bcc

Subject open & closed loop LNG terninals

I definitely think Open-loop systems must be banned!! And I'm not sure the closed loop systems are safe enough for our fragile environment. When just the global warming raises the sea surface temperatures enough to kill 800 year old coral reefs in the caribdean seas plus 60 to 90% of most other coral species in the summer 2005, it's not very encouraging or wise to introduce any other factors into the mix. The Gulf of Mexico's sea surface temperatures were higher this year than any since 1890! What does that tell you about the intensity of the hurricanes in 2005??? What do we have in store for us this year?? and the next and next?? Plus what are we going to eat for fish?? The lack of oxygen in the dead zones is producing off balance hormones in the shrimp and fish with overly large populations of males being produced. How long can they survive like that? And what about us? What will we eat? - more and more of the plastic foods that line the grocery shelves? I'm glad I'm 59 years old. What depressing futures kids have to anticipate on a planet so depleted. And for what?? - for the profits of the companies in power while they were mere children! The polar caps are melting and the coral reefs are dead and the coastal marshes have almost disappeared. you'd best hold on to your asphalt and concrete and marble. Bon Appetite!
Sidney Wilder

From Kristina Jackson <kristina.jackson@sierraclub.org>
Sent Tuesday, April 4, 2006 9:10 am
To NOAA.LNGBP@noaa.gov
Cc
Bcc
Subject Public comment: Best Practices for LNG Terminals

NOAA.LNGBP@noaa.gov
Attn: David MacDuffee

April 3, 2006

RE: NOAA'S RECOMMENDED BEST PRACTICES FOR LIQUEFIED NATURAL GAS (LNG) TERMINALS

Mr. MacDuffee:

On behalf of the Sierra Club's Gulf of Mexico Sustainable Fisheries Campaign, I would like to submit these comments on the agency's Best Practices for Liquefied Natural Gas Terminals.

Generally the document's summary of management practices and their potential impacts were thorough and well-supported with citations of scientific studies. The common practice of many agencies, including NOAA, is to claim that negative impacts should be avoided, minimized, or mitigated. The Sierra Club asserts that there are some practices that are so destructive to the resource that they should be prohibited, not simply avoided.

The Best Practices document lays the scientific facts that open-loop heat exchanger systems are enormously destructive. The document cites five primary reasons why open-loop systems should not be permitted:

- the volume of water intake;
- damage and mortality of impinged and entrained organisms, especially fish eggs and larvae;
- generation of thermal plumes;
- discharge of chemically treated water; and
- generation of excessive noise in the marine environment.

Open loop systems have such a significant negative impact on the environment that they should not be permitted at all. Your document clearly supports the prohibition of this operational design and the fact that there is no such thing as a Best Management Practice that includes open-loop exchangers.

In addition to removing open-loop exchangers as an option, the document supports the requirement that siting and construction of terminals NOT be permitted in:

- sensitive habitats or Essential Fish Habitat;
- migration routes of marine mammals and listed species;
- migration routes of economically important fish species and their forage; or
- local commercial or recreational fishing areas.

Sierra Club agrees with the Best Practices document in its assertion that platforms not be permitted for placement on-shore or near-shore because of the negative impacts on these habitats and economically important fishing areas.

The Sierra Club agrees with the NOAA Best Practices document in its statement that the NEPA process

for all permitting for LNG should be engaged early on to avoid environmental and economic conflicts. Once a company has established a plan for a single priority site or option they are loathe to change their plans. We are seeing this as Shell US Gas & Power LLC forges ahead with its plans for inappropriate open-loop exchangers in critical habitat areas in the Gulf of Mexico.

We appreciate this chance to comment on this quality document that you have produced. We reiterate that open-loop exchangers are not appropriate under any conditions and should be prohibited. The closed-loop operational design is far superior, with less negative impacts on environment and economic conditions as long as their placement, construction and shipping lanes are fully evaluated as you have outlined in your Best Practices.

Sincerely,

Kristina Jackson
Regional Conservation Organizer
Gulf of Mexico Sustainable Fisheries Campaign
Florida Office of the Sierra Club
1024 NW 13 Avenue, Gainesville, FL 32601
352-375-1441, kristina.jackson@sierraclub.org

BEFORE THE NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION

In Re: Recommended Best Practices)
for Liquefied Natural Gas Terminals)

COMMENTS OF THE CENTER OF LIQUEFIED NATURAL GAS

Pursuant to the notice wherein the National Oceanic & Atmospheric Administration (NOAA) seeks public comment of its Draft Recommended Best Practices for Liquefied Natural Gas (LNG) Terminals (Draft Best Practices), the Center for Liquefied Natural Gas (CLNG) files these comments on the draft.

IDENTIFICATION OF INTEREST:

CLNG is an organization whose mission is to be an information source that distributes educational and technical information on liquefied natural gas (LNG). Additionally, CLNG seeks to facilitate rational issue discussion and the development of public policies that support LNG's increasing contribution toward meeting our nation's growing energy demand, and ensure the safe, secure, and environmentally sensitive development and operation of LNG facilities.

COMMENTS:

Preliminarily, CLNG notes that neither it, nor its member companies with pending offshore LNG facility applications, were contacted by NOAA about the Draft Best Practices. Given more notice, CLNG would have provided more detailed responses to

the Draft Best Practices. Even so, CLNG may supplement these comments at a later date, seeing nothing in the notice that would preclude it from doing so.

With due respect to NOAA, CLNG strongly disagrees with the primary purpose of the Draft Best Practices, which is stated as follows:

> ... to provide guidance to NOAA staff to ensure consistent reviews of applications and environmental impact analyses of proposed LNG terminals, including their planning, design, siting, construction and operation. In addition, the document may be used to assist Federal agencies and project applicants in the early identification of potential environmental issues that may result from a proposed LNG terminal.[1]

The reason for CLNG's disagreement is that the purpose of the Draft Best Practices suggests that NOAA is the lead agency for permitting LNG facilities, which is contrary to express statutory language vesting such authority elsewhere (33 U.S.C. Section 1501, *et.seq.*). While the document seems to provide limitations on the purpose, the stated purpose is exceedingly overbroad as it reaches into technical aspects of LNG facilities beyond the expertise of NOAA, such as facility design, construction, and operation. Furthermore, the Draft Best Practices, as set forth in the purpose statement, presumes to tread upon the obligations of other agencies such as the Maritime Administration (MARAD) and the United States Coast Guard by making determinations that are in the exclusive purview of the lead agency, such as a determination as to "best available technology."

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[1] National Oceanic & Atmospheric Administration's Recommended Best Practices For Liquefied Natural Gas Terminals, Draft (12/13/05), p. 1.

Having stated CLNG's disagreement over the stated purpose of the Draft Best Practices, and without waiving such disagreement,[2] CLNG also has significant concerns about the contents of the document. Generally, for a guidance document with the express purpose of ensuring "consistent reviews of applications and environmental impact analyses of proposed LNG terminals," the Draft Best Practices is woefully superficial in attempting to address the technology of LNG regasification systems.

The overall theme of the Draft Best Practices seems to be an attack on the use of open-loop vaporizers (OLVs), or open rack vaporizers (ORVs), which is evidenced by the conclusion stated on page 5 of the document: "[T]he use of open-loop systems, compared to closed-loop, substantially increases the degree of impact on the marine environment." Furthermore, the Draft Best Practices makes sweeping statements opposing the use of OLVs for the purpose of providing "guidance to NOAA staff to ensure consistent reviews of applications,"[3] but not giving an adequate examination of the technology in a way that is transparent to the general public. This is particularly important in light of the fact that open-loop technology is the world standard and used extensively in places that have a high emphasis on protecting the environment, such as Europe and Japan. Furthermore, the Draft Best Practices provides no basis for the conclusion that closed-loop systems are environmentally superior to OLV technology,

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[2] CLNG cannot ascertain from the Draft Best Practices the ultimate procedural or regulatory goals sought by NOAA in the postulating of the Draft Best Practices, and therefore does not want any of its comments on the contents of the document to be construed as any type of acquiescence for the adoption of the Draft Best Practices in any form whatsoever.

[3] National Oceanic & Atmospheric Administration's Recommended Best Practices For Liquefied Natural Gas Terminals, Draft (12/13/05), p. 1.

especially without an analysis of open-loop systems that should include energy consumption and air/carbon emissions. NOAA's parochial interests, versus a holistic approach required to be taken by the permitting agency, should not be hampering a process designed to use a renewable resource (seawater heat) to help deliver clean burning natural gas to the people of the United States without a strong scientific basis for doing so.

Giving the OLV technology versus the closed loop, or submerged combustion vaporizer, technology a superficial explanation, the Draft Best Practices then states: "NOAA staff should recommend during the pre-application phase or early in the review process the use of a closed-loop regasification system. NOAA has determined the use of closed-loop system to be the best available technology and a best practice for avoiding or minimizing impacts on the marine and coastal environment."[4] The particular concern expressed by NOAA is "that the use of open-loop systems will result in the loss of significant numbers of fish, particularly larvae and eggs."[5]

CLNG takes issue with NOAA's determination that closed-loop vaporizers are the best available technology and "that the use of open-loop systems will result in the loss of significant numbers of fish, particularly larvae and eggs."

The determination concerning "best available technology" is a statutory function, requiring the Secretary of Transportation to make a determination "that the applicant has demonstrated that the deepwater port will be constructed and operated using best available technology, so as to prevent or minimize adverse impact on the marine

[4] Id. at p. 6.

[5] Id. at p. 5.

environment."[6] CLNG does not intend to minimize NOAA's role in providing recommendations to the Secretary, but affirmatively asserts that the statute requires the decision as to "best available technology" to be made by the Secretary of Transportation, not NOAA, with due consideration being given to other agencies' recommendations and consultative advice in addition to the recommendation of NOAA.

As to NOAA's claim about the negative impact of larvae and eggs, not only is such a claim in contravention of the analyses set forth in the various Environmental Impact Statements (EISs) prepared thus far during the permitting of offshore LNG facilities in the Gulf of Mexico, such a claim should have itself been subject to public scrutiny and peer review. By so doing, the general public would have been given the opportunity to address the concern NOAA has for larvae and eggs.

Indeed, CLNG was concerned enough about the impingement and entrainment issues regarding fish in the Gulf of Mexico that it commissioned Exponent to review the methodologies used in preparing the various EISs for projects in the northern Gulf of Mexico, with the stated purpose being to provide: "an independent ecological review of the analyses performed to date regarding potential project-specific and cumulative impacts of the use of OLV technology on important fishes of the GOM."[7] Stated more specifically, CLNG commissioned Exponent "to develop an independent evaluation of the technical work that has been done to date in assessing environmental impacts from

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[6] 33 U.S.C., Section 1503(c)(5).

[7] An Evaluation of the Approaches Used To Predict Potential Impacts of Open Loop LNG Vaporization Systems on Fishery Resources of the Gulf of Mexico, by Exponent (November 2005), page 1-1.

liquefied natural gas (LNG) terminals in the northern Gulf of Mexico (GOM) that propose to use open loop vaporization (OLV) technology to regasify the LNG into natural gas."[8]

The Exponent report[9] sets forth four (4) major findings:

1. "The SEAMAP database that forms the basis of the impact prediction is adequate for use in the calculation of egg and larval abundances potentially affected by the proposed LNG facilities,"[10] even though the data is limited. The manner in which the data has been handled leads to overestimates of the negative impact on fisheries.

2. "The adult-equivalent modeling approach used in the EISs, which projects egg and larval abundances to weights of adult fish, contains mathematical errors, data analysis defects, and conceptual flaws. The net result is that the models substantially overpredict fish mortality."[11] Additionally, "The modeling approach [used in the EISs] is also inconsistent with the stock assessment methods that are used to assess fishing impacts."[12] By using an egg-equivalent (fecundity or hindcasting) approach, the corrected model predicts a mortality equivalent of 8 spawning females of red drum per year.

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[8] Id. at p. vii.

[9] A copy of the Exponent report entitled An Evaluation of the Approaches Used To Predict Potential Impacts of Open Loop LNG Vaporization Systems on Fishery Resources of the Gulf of Mexico, by Exponent (November 2005), is filed with these Comments.

[10] An Evaluation of the Approaches Used To Predict Potential Impacts of Open Loop LNG Vaporization Systems on Fishery Resources of the Gulf of Mexico, by Exponent (November 2005), at p. viii.

[11] Id. at p. viii.

[12] Id. at p. viii.

3. "Overall, the data inputs, assumptions, and modeling approaches used in the EISs substantially overestimate the potential for adverse impacts of LNG facilities -- for individual facilities as well as cumulative impacts from multiple facilities."[13]

4. "The analyses conducted in the EISs, while limited in some respects and highly conservative in nature [in other words, the EISs overpredict mortality rates], are still sufficient to make licensing decisions concerning operation of LNG facilities using OLV [or ORV] systems."[14]

To summarize the findings, because of the abundance of conservative assumptions used in the EIS assessments, even the insignificant cumulative impacts determined by the EIS assessments are over-estimated. Thus, LNG facilities located in the Gulf of Mexico using open loop vaporizers would have "minor adverse" impacts on the environment.

Therefore, the concerns of NOAA "that the use of open-loop systems will result in the loss of significant numbers of fish, particularly larvae and eggs" have been more than adequately addressed by the current methodologies used in the preparing of the Environmental Impact Statements by the lead agencies in the permitting process, thus obviating the need for the adoption of the Draft Recommended Best Practices for Liquefied Natural Gas (LNG) Terminals.

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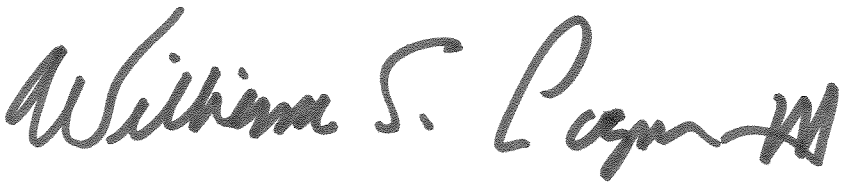
[13] Id. p. ix.

[14] Id. p. x.

CONCLUSION:

Based upon the foregoing, the Center for Liquefied Natural Gas respectfully requests that the Draft Recommended Best Practices for Liquefied Natural Gas (LNG) Terminals not be adopted by the National Oceanic & Atmospheric Administration.

Respectfully submitted,



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DATED: April 5, 2006

From "Pautsch, Richard J SHLOIL-LEGAL" <R.J.Pautsch@shell.com>

Sent Wednesday, April 5, 2006 4:56 pm

To NOAA.LNGBP@noaa.gov

Cc "Koehler, Greg STUSCO" <gkoehler@shellgp.com> , dennis@winklerpr.com

Bcc

Subject Comments on NOAA's Recommended Best Practices Document

Gulf Landing LLC, holder of a license to construct an offshore LNG regasification terminal in the Gulf of Mexico, takes issue with the manner in which NOAA is attempting to promulgate its Recommended Best Practices for Liquefied Natural Gas Terminals document. This "guidance" document would in practice have the same effect on applicants in regard to the approval or denial of their applications for LNG terminals as would a formal rulemaking. It appears to be NOAA's intent to use this document not only within NOAA, but to have the standards contained in the document used by other agencies as well. In addition, the document will no doubt be cited as authoritative by LNG project opponents in court challenges to LNG projects. Because of the impact on LNG terminal applicants, and the wide-ranging impacts that the document will undoubtedly have, it should be promulgated in accordance with the Formal Rulemaking requirements of the Administrative Procedure Act rather than in the informal manner undertaken by NOAA herein.

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April 5, 2006

National Oceanic and Atmospheric Administration
14th Street & Constitution Avenue, NW
Washington D.C. 20230

Attention David MacDuffee

Re: Comments on Draft Recommended Best Practices for Liquefied Natural Gas (LNG) Terminals

Dear Mr. MacDuffee:

Pursuant to the National Oceanic and Atmospheric Administration's (NOAA) request for comments set forth at http://www.nmfs.noaa.gov/habitat/habitatconservation/whatnew/LNG.htm Excelerate Energy L.L.C. (Excelerate), is pleased to set forth herein its views on NOAA's *Draft Recommended Best Practices for Liquefied Natural Gas (LNG) Terminals* (Draft). In that document NOAA states that the document is intended to "serve as guidance to staff to ensure consistent implementation of [NOAA's] responsibilities … in identifying potential environmental issues that may result from a proposed LNG terminal."[1] Further, the document states that it is "intended to assist applicants in complying with NOAA requirements and processes related to LNG projects and to help ensure consistent NOAA review among projects."[2] Excelerate fully endorses these goals and offers its comments for the purpose of assisting NOAA in ensuring that these goals are fully incorporated into the Best Practices to be made applicable to NOAA's review of deepwater port applications.

[1] Draft at 3.
[2] *Id.*

As also discussed below, the Draft will have greatest value to NOAA, the LNG industry and the national interest if NOAA (i) clearly and completely sets forth in the final version of the document (hereinafter "Best Practices") detailed guidance on the matters that must be included in each applicant's filing to own, construct and operate a natural gas deepwater port; (ii) adheres to its guidance, deviating only to address the particular circumstances of a specific proposal and providing early notice to an applicant, as a part of a "pre-application" process, of all deviations from its guidance and how NOAA anticipates that such deviations should be addressed by an applicant; (iii) strictly adheres to the time lines established for reviewing and commenting on a proposal; and (iv) applies the Best Practices solely on a prospective basis.

Before the Best Practices can be implemented and applied by NOAA, Excelerate believes that a number of important revisions should be made to the Draft. As discussed more fully below, the document includes various conclusions that are not supported within the document and have not been directly subjected to independent review. In addition, it appears that the Draft provides guidance in areas that could be more beneficial if made less vague, and if some ambiguity as to how provisions might be applied were removed. Of concern, particularly when considering the extensive inter-agency interactions that take place in the review process, is that the Draft seems to focus, in areas, on activities that appear to be outside the jurisdiction of NOAA. The specific concerns that Excelerate submits should be addressed are set forth below.

EXCELERATE'S INTEREST

Excelerate is a privately-held company that is involved in the design, construction and operation of liquefied natural gas regasification terminals. Gulf Gateway Energy Bridge L.L.C. (Gulf Gateway), a subsidiary of Excelerate, owns and operates the world's only operational natural gas deepwater port – licensed pursuant to the Deepwater Port Act (DWPA). A second

subsidiary, Northeast Gateway Energy Bridge, L.L.C. (Northeast Gateway) has proposed to construct and operate a natural gas deepwater port offshore Massachusetts. Excelerate also is reviewing other possible locations offshore the United States where natural gas deepwater ports might be constructed and operated pursuant to the DWPA. Thus, Excelerate has an interest in the Draft.

THE DRAFT RECOMMENDED BEST PRACTICES AND ITS RELATIONSHIP TO THE NEED FOR EXPEDITION

In summarizing its responsibilities to provide recommendations to the US Coast Guard (USCG) and MARAD on LNG terminals, NOAA has indicated that while it is responsible for managing, conserving and protecting marine and coastal resources, it also has a responsibility to expedite its review of LNG proposals. Specifically, the Draft states that "[u]nder the Memorandum of Understanding (MOU) Related to the Licensing of Deepwater Ports pursuant to the Deepwater Port Act of 1974…NOAA is required to expedite the review process of offshore LNG proposals in coordination with the USCG and MARAD."[3] Moreover, Executive Order No.13212 establishes the administration policy that federal agencies shall expedite their review of permits or take other actions as necessary to accelerate the completion of energy-related infrastructure projects.[4] As discussed briefly below, the need for expediting the review process for LNG import terminals is the result of three factors: first, the growing imbalance between natural gas supply and demand in the United States; second, the international competition for supplies of LNG; and, third, the need for a diverse domestic LNG energy network to satisfy that demand.

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[3] Draft at 2.

[4] 66 *Fed. Reg.* 28357 (May 22, 2001).

The Energy Information Administration of the Department of Energy (EIA) projects that domestic demand for natural gas will reach 27.0 trillion cubic feet (tcf) by 2025. Of that amount, EIA has determined that LNG imports will have to total approximately 4.1 tcf, or approximately 15 percent of supply, to meet expected demand.[5] For 2004, LNG imports totaled approximately 0.6 tcf, meaning that imports of LNG will have to increase by 3.5 tcf from 2004 levels in order to meet the demand expected by 2025. That nearly seven fold increase in imports can only be achieved if steps are taken now to ensure that regasification terminals necessary to receive LNG will be available.

The ability of U.S. markets to compete for supplies of LNG cannot be presumed. The EIA has determined that natural gas is the fastest growing energy source worldwide, with consumption expected to grow by approximately 70 percent between 2002 and 2025.[6] The global competition for LNG has already begun. For example, in its Annual Energy Outlook 2005, EIA projected that imports of LNG into the U.S. would reach 6.4 tcf by 2025, as compared to the expected demand of 4.1 tcf that it projected one year later in its Annual Energy Outlook 2006. According to the EIA, the decline from 6.4 tcf to 4.1 tcf is attributable to growth in worldwide demand for natural gas, resulting in higher worldwide prices for natural gas and less availability for U.S. markets.[7] In order to even compete for LNG supplies, however, the infrastructure must be available to receive those supplies. Otherwise, the ability of U.S. markets to compete for LNG will be artificially constrained by a barrier not faced by other countries that have adequate infrastructure to receive additional supplies of LNG.

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[5] Annual Energy Outlook 2006, at 9-10.

[6] International Energy Outlook 2005 at 37.

[7] Annual Energy Outlook 2006 at 3.

Finally, there must be diversity in the availability of LNG infrastructure. The construction and operation of offshore terminals was envisioned as a means for diversifying LNG regasification sources. For example, in ruling on the Gulf Gateway deepwater port application, the Maritime Administration recognized the importance of diversifying LNG regasification sources, stating that:

> Much of the energy our nation uses passes through a vast nationwide network of generating facilities, transmission lines, pipelines, and refineries that convert raw resources into usable fuel and power. That system is currently deteriorating and is now strained to capacity. Therefore, the construction of a new system of offshore deepwater port facilities will expand our energy infrastructure to connect new supply sources to a growing energy market in an environmentally sound manner….
>
> With greater diversity of sources…the nation is better able to cope with disruptions in energy supplies that could undermine our economy and place our national security at risk. Essentially…energy sufficiency means a stronger more diverse energy network that reliably supplies our nation under unpredictable conditions.[8]

The goal of achieving diverse sources for regasification terminals in an expeditious manner, however, is not being achieved. Since the 2002 amendments to the DWPA, the Federal Energy Regulatory Commission, the agency with primary jurisdiction over the construction and operation of onshore LNG regasification terminals, has approved eleven requests to construct or expand LNG terminals and, also, has denied another request to build a terminal. In that same period, only three companies have had offshore terminals approved, including Gulf Gateway,

[8] The Secretary's Decision on the Deepwater Port License Application of El Paso Energy Bridge Gulf of Mexico, L.L.C. at 14 (2003). *See also,* a statement of former Chairman Alan Greenspan before the Center for Strategic and International Studies, recognizing the need for LNG supplies and offshore terminals, ("Access to world natural gas supplies will require a major expansion of LNG terminal import capacity and the development of the newer offshore regasification technologies.") at www.federalreserve.gov/boarddocs/speeches/2004/20040427/default.htm.

and one of those three has elected to suspend its activities indefinitely.[9] Of those projects, two were approved within approximately a year after enactment of the 2001 amendments to the DWPA and only one thereafter. Moreover, while the review process for deepwater port applications is required by the DWPA to be conducted in a period of approximately one year, projects are currently taking a much longer period of time to be reviewed. In contrast, while the Federal Energy Regulatory Commission ("FERC" or "Commission") is not required to process applications before it within a one year period, the projects that have been approved by the FERC generally have been considered in time periods ranging generally from less than a year to eighteen months.[10]

LNG is an important element of this country's future energy security. LNG supplies, however, cannot be presumed to be available and to compete for LNG on a worldwide market, a diverse infrastructure must be developed to receive LNG supplies. While significant effort is being expended, the current regulatory approval process for siting and constructing offshore LNG terminals has not advanced quickly enough to ensure that this country can compete for supplies of LNG. Thus, to increase value of the Best Practices to be applied by NOAA, there must be a commitment to conducting reviews expeditiously and identifying early in the process all issues it deems important for review. Otherwise, the licensing process will be subject to

[9] *See,* www.ferc.gov/industries/lng/indus-act/terminals/exist-prop-lng.pdf. The decision to indefinitely postpone construction of the Port Pelican terminal was noticed by the Maritime Administration on October 4, 2005, 70 *Fed. Reg*. 57885

[10] For example, in May of 2004, Pearl Crossing LNG Terminal LLC filed its deepwater port license application. Affiliates also filed in that same time period applications with the FERC to build two onshore terminals. The two onshore terminals were approved by the FERC in 2005 and Pearl Crossing, whose application had been indefinitely suspended to give the USCG more time for review, withdrew its deepwater port application in October of 2005, stating that the onshore terminals satisfied the business need for two terminals capable of being placed into service by 2008. *See,* Letter of Pearl Crossing LNG Terminal LLC, dated October 19, 2005 in Docket 18474.

delays that will discourage development of offshore energy projects and may reduce project viability.

Finally, there are proceedings ongoing before the USCG and MARAD to consider deepwater port applications. Some of these proceedings, including Excelerate's Northeast Gateway proceeding, have been pending for months, if not years. In such circumstances, any Best Practices adopted by NOAA must be made prospectively. Otherwise, the process for expediting the review of deepwater port applications will bog down and the result will be that deepwater ports necessary for this country's energy security will be delayed.

NOAA'S ENDORSEMENT OF A PRE-APPLICATION PROCESS

In its Draft, NOAA states that during both the pre-application and application phases, coordination activities should be undertaken with as many resource agencies as possible.[11] Excelerate fully endorses the view that deepwater port applications should include a pre-application process. However, there is neither a formal nor an informal pre-application process for deepwater port applications currently in place. This differs from the approach that previously was informally followed by the FERC for onshore LNG projects and is now required to be followed pursuant to section 311(d) of the Energy Policy Act of 2005. The Commission's order implementing section 311(d) and formalizing that approach is set forth at http://thefederalregister.com/d.p/2005-10-18-05-20653.

Notwithstanding the absence of either a formal or informal pre-application process used by the USCG and MARAD, NOAA nevertheless recognizes that a pre-filing application process can aid in implementing best practices. Indeed, many of the specific proposals set forth in the Draft appear to assume that a pre-application process will be used by NOAA to evaluate DWPA

[11] Draft at 4.

license applications. Moreover, as suggested in the Draft, such a pre-application process can be coordinated with other cooperating agencies, thereby clarifying issues and reducing the likelihood of conflicting positions.[12] In this regard, the pre-application process followed by the FERC has been highly successful in obtaining early involvement by governmental agencies and the public, as contemplated by NEPA and the regulations of the Council on Environmental Quality.[13] Accordingly, Excelerate recommends that NOAA's Best Practices be patterned on the pre-application process used by the FERC.

A pre-application process for deepwater ports will provide NOAA with a more detailed understanding of a project, identify early in the process data needs and issues requiring further review, aid in developing a consistent approach to LNG projects and promote a collaborative effort between NOAA and a project applicant.[14] Equally significant, after an application is filed, the time necessary for reviewing agencies to consider a project is lessened and the one year period applicable to considering deepwater port applications can then be used to fine tune the resolution of any issues identified during the pre-application process that still require resolution. That has been the experience of the FERC and was a reason that the Energy Policy Act of 2005 made the pre-application process mandatory for onshore LNG terminal applications.

A pre-application process, however, will be of little benefit unless there is a commitment both to the process and to specifying, in a timely manner, the information required and the issues believed to be presented by a deepwater port proposal. Moreover, agencies and applicants must know when the time period for the pre-application process will end and the milestones that will apply to each phase of a pre-application process. Thus, to enhance the value of the Best

[12] *Id.*
[13] 70 *Fed. Reg.* at 60426.
[14] Draft at 1.

Practices document, NOAA, and all other agencies, must be prepared to participate fully in the pre-application process, to identify early in that process any issues believed to be present with respect to a specific project and to work with an applicant to resolve such issues, all within a period that will result in the expeditious consideration of a deepwater port application.

The Northeast Gateway project, with the approval of the USCG, pursued a form of pre-application process by conducting an outreach program that sought early input from federal agencies, including NOAA, state and local authorities and citizens. It also sought, through collaboration, to identify and resolve issues and questions before the deepwater port application was filed with MARAD and the USCG. That process involved more than a year of effort and encompassed multiple meetings with all affected parties. While largely successful, the process did not achieve all objectives because not all participants were committed to the pre-application process initiated by Northeast Gateway. The result was that delays to the project have occurred because issues that could have been resolved during the outreach program were instead raised after Northeast Gateway had filed its DWPA application. Thus, if the pre-application process envisioned by NOAA is to be successful, all parties must be committed to its success. Among other things, such commitment will require that a participant identify issues early in the pre-application process, define in detail the information that should be included in an application and make available any data that any person believes relevant to an application..

In its Draft, NOAA states that the Best Practices ultimately adopted by it will not be binding on it and that changing views on its part could result in revisions to the document.[15] Such unlimited discretion and lack of certainty it creates, also reflected in other parts of the document as discussed below, will result in a pre-application process that will less fruitful to

[15] Draft at 3.

either applicants or other agencies. Rather than retaining this level of discretion, the process would be better served by a commitment to set forth terms and conditions that will give an applicant a meaningful opportunity to understand the guidelines to be used by NOAA in evaluating deepwater port applications, as well as assurances that those guidelines will not be unduly changed during the review process. Otherwise, the Best Practices become more of a hindrance than a help in expeditiously developing new deepwater ports – clearly not what NOAA intends with this process.[16] Moreover, such discretion to change becomes even more difficult for an applicant if it occurs during review of a DWPA license application, as resultant delays may jeopardize project viability.

Excelerate recognizes that there must be some flexibility in the pre-application process so that facts and issues unique to a project can be identified and resolved. That is the process that has been successfully used by the FERC for its pre-application process. The FERC's success in using that process has been the result of well-defined criteria that must be included in an application, allowing the pre-application process to address any issues that may be unique to a specific project. That same approach, if adopted by NOAA and more broadly under the DWPA, would be an excellent addition to its Best Practices.

COMMENTS ON SPECIFIC STATEMENTS AND PRACTICES

As a general matter, one of the aspects of the Draft that is of concern is that the document does not convey an overall message of impartiality and a willingness to work with an applicant, the USCG, MARAD and other agencies to develop deepwater ports in a manner to minimize adverse environmental impacts on the marine environment. Rather, when considered in light of

[16] Moreover, to the extent that NOAA intends to change the Best Practices and make those changes the standard of review for deepwater port applications, such changes cannot be adopted by NOAA without notice to the public and an opportunity for comment, just as this Draft is subject to comment.

the specific comments set forth in the remainder of this submission, many of the substantive best practices identified in the document can be interpreted as providing the basis for recommending to the USCG and MARAD that a license application not be granted. Thus, in considering necessary revisions to its Draft, NOAA should make clear that if deepwater ports are to be developed, as Congress encouraged by extending the DWPA to natural gas ports in the 2002 amendment to that act, then adverse environmental impacts of deepwater ports should not be presumed. For example, the document states that the open-loop system will "substantially" increase the impact on the marine environment,[17] and that the temperature of discharged water will "likely" adversely affect fish eggs and larvae and reduce their survival rates.[18] Such conclusory, untested statements can signal that the Best Practices should be used to discourage the development of a proposed deepwater port or to compel an applicant to adhere to views that may be based on preconceptions or untested conclusions.

Untested Conclusions

A linchpin of the Draft is its reliance on an internal memorandum from the National Marine Fisheries Service Southeast Fishery Science Center for the proposition that there are significant concerns regarding the impact of the open loop system on the marine environment. Those concerns are then transformed in the document to a conclusion that closed loop systems should be recommended by NOAA to applicants and that a closed loop system is the "best available technology and a best practice for avoiding or minimizing impacts on the marine and coastal environment."[19] That memorandum, however, has not been the subject of public debate

[17] Draft at 5.
[18] *Id.* at 6.
[19] *Id.*

or review within the context of a DWPA application. Nor do the conclusions reached in the document necessarily apply to a specific deepwater port proposal.

Moreover, it is not the only study that addresses the impacts of the open loop system. For example, in November of 2005 Exponent published the results of a study on the open loop process that it had been commissioned to undertake.[20] Further, in accordance with its deepwater port license and based on input from NOAA, Gulf Gateway is required to conduct monitoring studies related to the use of an open loop system. Thus, before NOAA can conclusively claim that the memorandum justifies recommendation of only the closed loop system, the validity of the conclusions reached in the NOAA memorandum must be verified and tested against other studies that may reach different conclusions.

Further, by directing NOAA staff to advocate to all applicants the use of the closed loop system, the Draft creates a presumption that the closed loop system best minimizes adverse impacts on the marine environment, without any consideration of the facts of a particular proposal. In this regard, while Excelerate realizes, and endorses the concept, that each application must address the potential impacts of the use of one system rather than another, the staff of NOAA should not be directed to presume that the closed loop system is the only reasonable alternative. The determination of the best practice for a particular project is one that should be made as a part of the review process.

It is important to note that Excelerate's Northeast Gateway project has committed to only use the closed loop vaporization process, given its proximity to both shore and commercial fisheries. Thus, we are not arguing that an open loop process should be used for any or all given

[20] *An Evaluation of the Approaches Used to Predict Potential Impacts of Open Loop LNG Vaporization Systems on Fishery Resources of the Gulf of Mexico*, (November 2005).

areas or projects, but rather that each project location has differing characteristics that should be evaluated before any decisions are made regarding technology choice and operation.

Another example of the use of untested conclusions is the statement that terminals should be located "as far offshore as possible".[21] As NOAA is aware, a deepwater port requires the construction of pipeline facilities to deliver natural gas to onshore markets. Thus, a statement that a terminal should be located offshore as far as possible may result in ignoring the impacts of construction of offshore pipeline. Thus, before concluding that a terminal should be located as far offshore as possible, the impact of additional pipeline construction could result in additional impacts to the marine environment that should be considered before NOAA concludes that the best practice to be applied to a project is to locate it as far as possible from shore. Further, a recommendation of NOAA regarding the location of a terminal cannot be made without regard to other considerations, such as whether locating a terminal at a particular location is technically feasible.

While Excelerate recognizes that such balancing of competing interests is more properly a task for the lead agencies, we believe it important for NOAA to consider competing considerations that will affect the location of a terminal and impacts to the marine environment. The Best Practices should, therefore, recognize that there may be competing considerations that will affect the views of NOAA and, consequently, the Best Practices should direct NOAA staff to work with all parties, including an applicant, to reach a consensus on issues that may arise. For that purpose, Excelerate submits that the pre-application process provides the best means for reaching such consensus, thus re-emphasizing the need for all participants to the pre-application process to participate in that process.

[21] Draft at 7.

Vagueness of Guidance

The Draft should also be revised by NOAA to make its guidance more specific – and hence easier to implement. Specifically, while the document generally addresses alternatives for terminal sites,[22] the application process developed by the USCG and MARAD already have identified the factors related to alternatives that need to be considered by an applicant. It is unclear in the Draft how the recommendations to be provided by NOAA staff will differ, if at all, from the criteria used by the USCG in evaluating alternatives. If the criteria to be recommended by NOAA staff are different, the Best Practices must be set forth with much more specificity and, also, there must be a resolution of which agency's views, either the USCG or NOAA, should be followed by an applicant.

Another area where the Draft is vague is the statement that "scientifically based 'construction windows' should be used to minimize loss of habitat functions and values and the resources that might be harmed or displaced by the installation activities."[23] The guidance is vague because to date there has been little or no consensus among federal and state agencies regarding what constitutes an appropriate "scientifically based" construction window. Rather than stating that such a standard should apply, the Best Practices should specify that NOAA staff is directed to reach a consensus with all parties as to what constitutes a reasonable construction window.

The Draft should also be clarified with respect to its recommendations regarding open loop operations. The Draft states, for example, that withdrawal of water should only occur when

[22] *Id.* at 6-7.
[23] *Id.* at 8.

and where impacts will be minimized.[24] That recommendation appears open-ended and could be interpreted as suggesting to NOAA staff that seasonal or other limitations be placed on water withdrawals, without regard to operational realities. If NOAA believes that water withdrawals will adversely affect marine life, it seems more appropriate to address those concerns as a part of the facility design review rather than addressing them operationally.

Similarly, while the Draft recommends that in operating a terminal, lighting should avoid impacts to marine life,[25] that is a difficult standard to interpret in that does not account for the need to operate a terminal in a manner that also accounts for safety of personnel and facilities. Moreover, as previously stated with respect to the need for balancing competing considerations, the Best Practices should state that the impact of lighting on marine life must also consider other factors such as safety.

Also requiring further clarification is the discussion of monitoring.[26] While the draft generally describes the types of monitoring to be conducted, there must be reasonable limitations to such monitoring. For example, while the Draft proposes that a pre-construction baseline be required, such monitoring, if necessary, should not be used as a means to unreasonably delay construction. Also, before a pre-construction monitoring program is required, it should be demonstrated that existing data cannot be used as a baseline, and that a monitoring. program is needed to determine the specific impacts of a port on the marine environment. Moreover, the Best Practices should acknowledge that each project will require different monitoring. In this regard, the experience of Gulf Gateway in developing a monitoring program has demonstrated that a monitoring program can involve substantial time and consideration. NOAA's willingness

[24] *Id.* at 9.
[25] *Id.*
[26] *See, id.* at 12-13.

to work with an applicant to develop and commit to a monitoring program in a timely manner will greatly facilitate this process.

Guidance on Activities Outside NOAA's Jurisdiction

The Draft was somewhat confusing regarding the scope of NOAA's jurisdiction. For example, the Draft states that in addition to impacts on the marine environment, NOAA may require an analysis of impacts on "maritime heritage resources, aesthetics, and other user groups".[27] Excelerate submits, however, that such concerns are within the jurisdiction of others. To avoid duplicative efforts and confusion, it seems appropriate that these matters should be left to those agencies with primary jurisdiction and, also, to the USCG and MARAD who have overall responsibility for assessing the cumulative impacts of a project.

In addition to the above, it would be helpful to receive clarification regarding various statements made within the Draft. For example, the Draft appears to suggest that vessel traffic moving to a port may have effects on the marine environment.[28] However, it is not clear how NOAA intends to take vessel traffic into account. Specifically, is NOAA suggesting that it can oppose a deepwater port application on the basis that increased vessel traffic will adversely affect the marine environment? If so, how does the movement of an LNG vessel differ from any other vessel traffic and on what basis would NOAA regulate such vessel traffic?

Finally, the Draft, states that NOAA interprets the DWPA language that states that a port should be constructed and operated to prevent or minimize impacts on the marine environment as being synonymous with the term "avoid".[29] Excelerate requests that the significance of that comparison be further explained with respect to how NOAA intends to evaluate a deepwater port

[27] *Id.* at 12.
[28] *Id.* at 7.
[29] *Id.* at 2, n. 6.

application. More significantly, Excelerate respectfully submits that the interpretation of the term, as used in the DWPA, is perhaps more appropriately made by the USCG and MARAD.

CONCLUSION

Excelerate commends NOAA for making its Draft available for public comment. As discussed above, the review of deepwater port applications must be conducted on an expedited basis and the Draft seems to echo this sentiment. As also discussed, elements of the Draft, such as the use of a pre-application process, will aid in ensuring that timely decisions are rendered on deepwater port applications. Excelerate further submits, however, that the Draft requires certain modifications and clarifications, including those set forth herein, to facilitate the DWPA process. Towards that end, Excelerate is prepared to meet with NOAA to further explain its views and to take any other actions that will ensure that the Best Practices adopted by NOAA will serve the public interest.

Sincerely,

Rob Bryngelson, Vice President
Excelerate Energy L.L.C.

From Vivian Newman <newviv@adelphia.net>
Sent Wednesday, April 5, 2006 8:51 pm
To NOAA.LNGBP@noaa.gov
Cc
Bcc
Subject BEST PRACTICES FOR LIQUEFIED NATURAL GAS (LNG)

NOAA.LNGBP@noaa.gov
Attn: David MacDuffee

April 5, 2006

RE: NOAA'S RECOMMENDED BEST PRACTICES FOR LIQUEFIED NATURAL GAS (LNG) TERMINALS

Dear Mr. MacDuffee:

On behalf of the National Marine Committee of the Sierra Club, I am writing to commend NMFS for preparinig and publishing these Best Practices for Liquefied Natural Gas Terminals. They provide a welcome scientifically defensible basis for assessing and mitigating impacts on the marine environment and living resources. Moreover, the citation of legislative and regulatory authorities serves as a useful reference.

We agree with the statement that the NEPA process for all permitting for LNG should be engaged early on to avoid environmental and economic conflicts. This is just as important for public interest and citizens' groups as it is for industry. We all seek to reduce the economic costs associated with public participation.

We also seek predictability that is derived from the consistent application of standards. We agree with the Best Practices document in its assertion that platforms not be permitted on-shore or near-shore because of the negative impacts on these habitats and economically important fishing areas. We urge that you take some of your recommendations a step further and designate certain habitats as off-limits entirely for siting these facilities. Examples would be coastal wetlands, Essential Fish Habitat, known migration routes of marine mammals and species listed under the Endangered Species Act, Marine Sanctuaries, Estuarine Research Reserves, and areas with adverse geological or geophysical characteristics such as earthquake zones.

Similarly, we urge that you prohibit outright those techniques known to be polluting or otherwise harmful for the marine ecosystem. Open loop systems have such a significant negative impact on the environment that they should not be permitted at all. Similarly, the use of certain biofouling chemicals should be prohibited.

Thank you for providing this guidance, and for the opportunity to comment.

Sincerely,

Vivian Newman
National Marine Wildlife and Habitat Committee
Sierra Club
P.O. Box 388
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The ocean: A body of water occupying about two-thirds of a world made for man -- who has no gills.
(Ambrose Bierce, The Devil's Dictionary, 1906)

From Marcia Wilkins <marciawilkins@hotmail.com>
Sent Wednesday, April 5, 2006 11:20 pm
To NOAA.LNGBP@noaa.gov
Cc
Bcc
Subject NOAA Recommended Best Practices for LNG Terminals - Comments

NOAA.LNGBP@noaa.gov

Attn: David MacDuffee

April 5, 2006

RE: NOAA'S RECOMMENDED BEST PRACTICES FOR LIQUEFIED NATURAL GAS (LNG) TERMINALS

Mr. MacDuffee:

I would like to submit these comments on the agency's Best Practices for Liquefied Natural Gas Terminals.

The document's summary of management practices and their potential impacts were thorough and well-supported with citations of scientific studies. The common practice of many agencies, including NOAA, is to claim that negative impacts should be avoided, minimized, or mitigated. There are some practices that are so destructive to the resource that they should be prohibited, not simply avoided.

The Best Practices document lays the scientific facts that open-loop heat exchanger systems are enormously destructive. The document cites five primary reasons why open-loop systems should not be permitted:

the volume of water intake;
damage and mortality of impinged and entrained organisms, especially fish eggs and larvae;
generation of thermal plumes;
discharge of chemically treated water; and
generation of excessive noise in the marine environment.
Open loop systems have such a significant negative impact on the environment that they should not be permitted at all.

I also agree with supporting the requirement that siting and construction of terminals not
be permitted in sensitive habitats or Essential Fish Habitat; migration routes
of marine mammals and listed species; migration routes of economically important fish species and their forage; as well as in local commercial or recreational fishing areas. I agree that platforms not be permitted on-shore or
near-shore because of the negative impacts on these habitats and economically important fishing areas.

I thank you for this chance to comment on this document.

Sincerely,

Marcia Wilkins
56 Flax Hill Road
Brookfield, CT 06804

LOIS CAPPS
23RD DISTRICT, CALIFORNIA

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April 5, 2006

NOAA Fisheries
1315 East West Highway
Silver Spring, MD 20910

Re: Draft Recommended Best Practices for Liquefied Natural Gas (LNG) Terminals

To Whom It May Concern:

I am writing to express my general comments in response to the National Oceanic and Atmospheric Administration's (NOAA) Recommended Best Practices for Liquefied Natural Gas (LNG) Terminals.

As you know, energy companies are proposing a multitude of new facilities in California and other coastal states to be used for importing LNG. A number of these proposals have been extremely controversial. Still, they are advancing on a community-by-community basis, and at a rapid pace. As such, they are not part of a coherent strategy for evaluating the overall need for additional regional capacity. Nor are they based on strictly defined criteria for identifying potential sites. This ad-hoc approach does not provide an adequate basis for decision making about individual proposals.

Given the broad environmental and economic effects these proposals could have on marine resources, NOAA should ensure its framework accounts for the following as it reviews applications and environmental impact analyses of proposed LNG terminals:

- protects the marine and coastal environment, as well as public health;
- ensure projects are developed in appropriate locations, without conflicts to commercial and recreational fishing, boating, shipping, tourism and other marine uses;
- ensure certain areas, such as National Marine Sanctuaries and Marine Protected Areas, are excluded from energy development, including LNG;
- fully protects the public interest and safety;
- maintains a States' right to consistency review under the Coastal Zone Management Act;

- is consistent with the recommendations of the President's Commission on Ocean Policy;

- considers impacts to marine wildlife, including habitat;

- considers visual impacts, ocean and air pollution, and coastal development from construction and siting of LNG facilities and pipelines;

- completes additional in-depth studies to determine the suitability of proposal sites that are prone to earthquakes and tsunamis;

- occurs through processes that guarantee ample state, local government and public input in each area where new LNG facilities are proposed.

LNG facilities represent substantial long-term commitments of capital and dependence on fossil fuel imports. Therefore, new facilities should not be approved unless there is a clearly demonstrated need for the facility, it is built in the right location, and the public's interest is protected through a process that ensures full input.

I encourage NOAA to act deliberatively in this matter, based on a thorough public record in light of our nation's goals of environmental protection, public safety and energy diversity. Thank you again for the opportunity to comment on this important matter.

Sincerely,

Lois Capps

LOIS CAPPS
Member of Congress

FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION

MARY ANN POOLE, DIRECTOR
OFFICE OF POLICY AND STAKEHOLDER COORDINATION
(850)488-6661 TDD (850)488-9542
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TO: David MacDuffee
National Oceanographic and Atmospheric Administration

FROM: Mary Ann Poole MAP
Director, Office of ~~Policy~~ and Stakeholder Coordination
Florida Fish and Wildlife Conservation Commission

DATE: April 6, 2006

SUBJECT: Email Submission of Agency Comments re: National Oceanographic and Atmospheric Administration's Recommended Best Practices for Liquefied Natural Gas Terminals, draft dated 12/13/05

The Division of Marine Fisheries Management of the Florida Fish and Wildlife Conservation Commission (FWC) has coordinated agency review of the referenced document and provide the following comments and recommendations. Recommendations have been constructed in strike/add format where existing document language is stricken through, and recommended new language is underlined.

Background

The National Oceanic and Atmospheric Administration (NOAA) crafted the "Best Practices for Liquefied Natural Gas (LNG) Terminals" document to provide guidance to NOAA staff that would ensure consistent reviews of applications and environmental impact analyses of proposed LNG terminals. Additionally, the document could be utilized by other Federal agencies and project applicants in the early identification of potential environmental issues that may result from a proposed LNG terminal.

Concerns and Recommendations

Concern: Page 5 – Paragraph 4
Recreational fisheries in Florida are equivalent to, and may very well exceed, the economic value of commercial fisheries in Florida (Attachment I). It is important to recognize the value of recreational fisheries in addition to commercial fisheries in this document.

Zooplankton (including fish eggs and larvae) consisting of the majority of species of recreational and commercial importance, are found in the upper 200 meters of the water column throughout the world's oceans. In the Gulf of Mexico fish eggs and larvae of a majority of species of recreational and commercial importance, as well as subsurface chlorophyll maximum layers are

most commonly found in the upper 100 meters of the water column. It is unlikely that water withdrawal associated with an LNG operation would occur below 200 meters, or even below 100 meters. The conclusion drawn would be that any water withdrawal associated with an LNG operation would have an impact on "fish eggs and larvae, many of recreational and commercial importance".

Recommendation:
"The intake of large quantities of seawater could result in significant impacts on a large number of marine organisms (including fish eggs and larvae, ~~some~~ many of recreational and commercial importance) through impingement and entrainment (NOAA/NMFS Memorandum, Southeast Fisheries Science Center, 2004)."

Concern: Pages 8 & 9 - Section V. Operation of LNG Terminals
It is important to specifically address the take of plankton and potential affects to fisheries recruitment when analyzing impacts associated with operations that involve water withdrawal.

Recommendation: Add additional section as follows:
LNG operation impacts associated with water withdrawal may be avoided or minimized by utilizing a closed-loop system; however an operation utilizing a closed-loop system may still withdraw water for other operational functions such as cooling systems in an LNG regasification vessel. Cumulative impacts from water withdrawal associated with operating functions aside from open-loop or closed-loop systems should be taken into consideration, and the following approaches may be considered for minimizing these impacts:

1. Ensure that there is sufficient documentation of existing plankton communities in the proposed area of the LNG operation to be able to estimate potential impacts.
2. Locate water intake at a level or location where the presence of plankton is less dense and take is minimized.

Concern: Page 11 – Section A.
It is important to specifically address the take of plankton and potential affects to fisheries recruitment when analyzing impacts associated with operations that involve water withdrawal. It is also important to take into consideration impacts to state designated aquatic preserve areas.

Recommendation:
A. A list of direct, indirect, and cumulative biological effects resulting from physical, chemical, and biological changes on the environment, including a comprehensive and detailed analysis of potential impacts. Biological effects associated with LNG terminals could arise from construction activities, water intake, thermal pollution, discharges, pipe laying, dredging, vessel operations, etc. Depending on the specific project, impact estimates may include:

1. The extent of impacted EFH, ESA critical habitat, and other marine and coastal habitats;
2. Impacts on fisheries production and recruitment including estimated impacts on plankton;
3. Population-level impacts of MSA-managed species taking into account their interrelationships at both the habitat and the food web level;

4. Impacts to listed and protected species, individual and population-level;
5. Impacts to state designated aquatic preserves;
~~5~~6. Impacts to national marine sanctuary resources and;
~~6~~7. Impacts to National Estuarine Research Reserves.

Concern: Page 13 - Section C.
Gear specifications should be expressly mentioned to ensure that data collection activities provide accurate and sufficient information, and to be able to appropriately evaluate potential harassment or take of listed species. This would provide consistency with section E which reads:

"E. Be designed in such a way that sampling avoids or minimizes potential take of endangered, threatened, or protected species. "

Recommendation:
C. Describe and follow specific and well-established protocols by including:

1. A defined sampling area, defined sampling objectives, and control or reference sites;
2. Data collection specifications (e.g., experimental design, methodologies including gear specifications, variables being measured, and time, frequency and sampling duration); and
3. Data analysis procedures and techniques used (e.g., statistics and modeling techniques).

Concern: Page 20 Appendix II
The concern with this appendix is that critical habitat types and locations are not listed for nearshore/esturine and offshore/marine areas in Florida.

Recommendation: Addition of habitat types and locations that are of primary concern to Florida.

REGION	HABITAT TYPE	
	Nearshore/Estuarine	**Offshore/Marine**
Southwest	• Salt marsh • Intertidal sand and mudflats • Eelgrass beds • Kelp beds • Rocky hard bottom- nearshore reefs • Soft bottom	• Rocky hard bottom – all rock reefs
Southeast	• Hard bottom (including coral, limestone, oyster and wormrock reefs) • Intertidal Marsh • Seagrass • Mangrove • Tidal sand and mud flats • Designated critical habitats for	• Hard bottom and topographic features including, but not restricted to: - *Shelf-Edge Banks*--East Flower Garden Bank, West Flower Garden Bank, Geyer Bank, Rankin Bank, Elvers Bank, MacNeil Bank, Appelbaum

	Johnson's seagrass, endangered and threatened sea turtles, Gulf sturgeon, and Northern right whale	Bank, Bright Bank, McGrail Bank, Rankin Bank, Alderdice Bank, Rezak Bank, Sidner Bank, Ewing Bank, Jakkula Bank, Bouma Bank, Parker Bank, Sackett Bank, Diaphus Bank, Sweet Bank - *South Texas Banks*--Big Dunn Bar, Small Dunn Bar, Blackfish Ridge, Mysterious Bank, Baker Bank, Aransas Bank, Southern Bank, North Hospital Bank, Hospital Bank, South Baker Bank, Dream Bank - *Midshelf Banks*--Claypile Lump, 32 Fathom Bank, Coffee Lump, Stetson Bank, 29 Fathom Bank, Sonnier Bank, 29 Fathom Bank, Fishnet Bank - *Florida* -- Miami Escarpment (Miami Terrace), Oculina Bank HAPC, Florida Middle Grounds HAPC, Madison Swanson Fishing Reserve, Steamboat Lumps Fishing Reserve • Areas that may support or have a documented presence of deep water coral species such as *Antipathes sp.*, *Oculina sp.* and *Lophelia sp.* • Designated critical habitat for Northern right whale

Summary

This document was very well written and it is apparent that an extensive amount of work and thought was placed in its' development. The FWC appreciates NOAA's initiative to create such a guidance document, and is grateful for the opportunity to comment on this draft. If you have any questions or need any additional information, please contact Lisa Gregg in the Division of Marine Fisheries Management at (850) 488-6058 x210 or lisa.gregg@myfwc.com .

map/lg
ENV 1-1
NOAA LNG Best Practices FWC Comments
Attachment

ATTACHMENT I

ECONOMICS OF FISH AND WILDLIFE RECREATION

FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION ESTIMATES FOR 2005

Category	Expenditures	State Sales Taxes	Economic Impact	Jobs
Hunting	**$445,106,190**	**$26,706,370**	**$783,378,920**	**7,338**
Freshwater Fishing	**$1,177,814,630**	**$70,668,879**	**$2,118,002,070**	**19,519**
Saltwater Fishing	**$3,332,750,312**	**$199,965,021**	**$5,818,894,107**	**59,418**
Wildlife Viewing	**$1,005,519,758**	**$60,331,187**	**$1,919,762,397**	**19,361**
TOTAL	**$5,961,190,890**	**$357,671,457**	**$10,640,037,494**	**105,636**

Additionally, commercial fishing and the boating industry contributed the following economic impacts to Florida's economy.

Category	Economic Impact
Commercial Fishing	**$562 Million 9,787 jobs**
Seafood Processing Industry	**$614 Million 3,108 jobs**
Boating Industry	**$16.5 Billion**

NOTE: The expenditure data for fishing, hunting and wildlife viewing are derived from the **U.S. Fish and Wildlife Service;** 2001 National Survey of Fishing, Hunting and Wildlife – Associated Recreation. Economic impact data are derived from the **American Sportfishing Association;** Sportfishing in America, Values of Our Traditional Pastime; **International Association of Fish and Wildlife Agencies;** Economic Importance of Hunting in America and **Southwick and Associates**; The 2001 Economic Benefits of Watachable Wildlife Recreation in Florida.. Estimates for the boating industry are derived from the **Marine Industries Association of Florida**. Estimates for commercial fishing are from the **University of Florida, Institute of Food and Agricultural Sciences**, Dr. Alan Hodges Principal Investigator. The baseline for the expenditure data and economic impact data are for 2001. Estimates for 2005 are adjusted to the Consumer Price Index (CPI) through September 2005 with the exception of jobs which reflect the 2001 baseline data.

ATTACHMENT I

Limitations of the Analysis

1. The sample frame for Hunting is limited to 47 observations statewide.
2. Participant values (number of individuals participating in a particular activity) are tied to the formulas used to calculate the economic analysis for hunting, fishing and wildlife viewing and reflect the baseline year of 2001.
3. Consumer behavior is not static. It is simply impossible (without conducting a major statewide study every year) to accurately predict consumer behavior. For instance, are consumers spending more or less and are consumers participating more or less in hunting, fishing and wildlife viewing activities. Therefore, it is reasonable to assume there is a measure of variability within the range of economic estimates provided for this analysis.
4. Economic impact figures for commercial fishing and the seafood processing industry historically demonstrate considerable variability from year to year.

The purpose of this document is to provide economic estimates for hunting, fishing, wildlife viewing, commercial fishing, the seafood processing industry and the boating industry beyond the baseline study for these activities. Use of these data should take into consideration the variables and limitations listed in this document.

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